

## THE IMPACT OF INFORMATION TECHNOLOGIES ON THE ORGANIZATION AND FUNCTIONING OF THE COMPANY

Valentin Florentin Dumitru\*

Academy of Economic Studies, Bucharest, Romania

### Abstract

The companies became more complex in terms of corporate structure and geographical area because of the globalization process and they are facing a higher and higher data volume, with a higher and higher competition level, especially during crisis moments, which makes the use of the information technologies (IT) a competitive advantage. The objective of this research was to prove the impact of the IT on the company. To this extent, we conducted an empirical research. We launched five hypotheses and in the end we proved that there is a dependency relationship between the size of a company and its degree of use of the IT, between the decision of use of the IT within a company and the organization and the functioning of the company, between the existence of the Internet in a company and its use for various purposes.

**Keywords:** information technologies, company, empirical research, impact

**JEL Classification:** M15

### Introduction

Currently, companies are undergoing a profound transformation that leads to an increase in complexity of work for those involved, but also for supplies, works and services. The process of globalization of economic markets has imposed new pressures on IT. This circumstance requires the need for working with more sophisticated tools, including IT (IT) to meet the challenges of a changing social reality and increasingly complex and demanding. The relationship between these factors was investigated in the past using *contingency theory* (eg, by authors Blackaby et al., 1995).

Together with the analysis of contingency factors the reference to current issues and their influence on firm strategy is important, and requires the deployment and management of information tools, such as to make performance easier to achieve by those responsible by offering a set of related information.

An optimal deployment of IT by companies means better adaptation to a changing environment, allowing the existence of long distance relationship and causing a high degree

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\* Author's contact: e-mail: valentin.dumitru@soft-expertinfo

of competitiveness. In this way, the dynamic nature of a firm can be improved. Even when a company is small, it must assimilate the use of IT. Moreover, since there is a greater number of intercommunication, the more likely it is to achieve diversification in a traditional company, and various improvements in its departments. Using IT, it is possible to know the risk of operations and to provide future earnings. The improvement of business relationships outside the firm, especially with external clients connecting to the company's website is also a significant factor. All these advantages were developed and tested in larger firms but can be extrapolated to small and medium-sized firms. In reality, in an economy such as the Romanian one, the use of IT is a prerequisite for development and growth.

The answer to the problems that seem to exceed us through the complexity, dynamics and the volume of data, processing and decisions, is the implementation of IT&C systems. The IT&C systems offer the quality of strategic resource to the electronic information, for an advantage position in the competition of the market economy (Surcel and Bologa, 2008).

In this research I started from the idea that IT has a positive, increasing impact on the company.

All the achievements in IT have the main purpose of reaching the global information society, which, according to O'Brien (1999), involves "confrontation" of four technological values, namely:

- computer company stage, covering the period 1970-2010;
- interconnected knowledgeable workers stage, which began in 1980;
- interconnected global business stage, started around the years 1992-1993;
- the stage of global information company, which began after 2010.

The rest of this paper is structured as it follows:

- a literature review;
- the presentation of the research methodology used;
- the analysis of the responses received to the questionnaire;
- the conclusions of the paper.

## **1. Literature Review**

Among the systems used in the companies we considered that the most useful systems currently are the ERPs (Enterprise Resource Planning), representing the complete and complex solution that integrates the entire business. Among the potential effects of using IT we retained dematerialization of documents and procedures, inter-organizational information systems, defining roles and improving managerial processes in organizations (Huber, 1990; Reix, 2002; Dumitru and Florescu, 2008). In our view, IT is essential for the survival and development of the entity.

In recent years, researchers examined the design and use of management systems in relation to the environment, IT, structure, strategy, firm size and culture. Traditionally, companies had the disadvantage that they have more restrictions when it comes to resources, while

they have greater flexibility to adapt to environmental changes. Some authors engaged in empirical analysis to determine if the companies were able to align the use of IT for financial accounting department and if it is one factor that leads to an improvement in their financial and organizational results (Debrecekeny and Gray, 2001; Velcu, 2008, Locke and Lowem 2007, Russell et al., 1999; Bollecker, 2000, Albu, 2006; Hyvonen, 2003 etc.).

Many studies (Granlund and Malmi, 2002; Verdaasdonk and Wouters, 1999, Dechow and Mouritsen, 2005 etc.) were directed on the relationship between business development and proper deployment of IT technologies, supporting the theory that the proper use of IT technologies help increase labor productivity, thereby affecting the critical wealth and prosperity of a country. According to OECD (2000), the countries with the largest IT investment achieve the greatest productivity growth indices. Also, companies that have an ERP are presented as a solution to the problems of dispersion and fragmentation of information (Chtioui, 2006). Currently, IT management processes tend to optimize the design of software packages in accordance with the best industry practices.

A large number of research is devoted to the impact of IT on the various components of the financial and accounting information: financial accounting (Debrecekeny and Gray, 2001; Velcu, 2008), financial audit (Tugui and Tugui, 2002; George, 2004; Roscoe and George, 2004; Stanciu and Mangiuc, 2006), managerial accounting and management control (Russell et al., 1999; Bollecker, 2000; Verstegen et al., 2005; Albu, 2006), management and exploitation of knowledge accounting (Scott, 1995; Kurunmäki, 2004; Burns and Baldvinsdottir, 2005; Hyvonen et al., 2006); performance of the company's financial accounting department (Dewan and Kraemer, 1998, Mahmood and Mann, 2000; Jouirou and Kalika, 2004; Florescu, 2008). In terms of financial accounting, we believe that IT should follow the trend shown in the internationalization of accounting standards. In our view, this can be achieved by implementing ERPs, because they use multiple currencies and they are multilingual systems. They also follow the trend of globalization and can integrate with applications used by customers, suppliers, state etc. With regard to financial audits, this is a new area of application of modern IT. Some researchers believe that there is an impact of IT on management accounting (Caglio 2003), while other studies cannot provide such certainty and argue that the impact is indirect, through the control system (Scapens and Jazayeri 2003, Granlund and Malmi 2002). For management accounting and management control we concluded that the role of people working in this field changed, including their abilities now to use IT (Albu, 2006). In regard to the management and use of accounting knowledge, I noticed that we talk now about a hybridization of the professions, but also about the danger of loss of jobs along with the deployment of IT. Regarding the performance of the company's financial accounting department using IT models may be proposed for the analysis of the financial accounting department.

## **2. Research methodology**

The first part of our research based on fundamental research, lays in a review of the literature on the impact of IT on organization and operation of the company. This review of the literature helped us to structure the main widely accepted ideas on the subject, but especially to determine how IT involvement in the company evolved in time.

Such research helped us to understand the theoretical concepts that form the basis of the research area, but mostly helped us to convince ourselves that the substance of these

concepts is not a rigid, but one that is modelled in relation with time or space. Literature review provided us with the ability to understand the features of the current process of deployment of IT and provided the foundation for applied research. On this basis we have formulated the general hypothesis: *IT has a direct impact on the organization and functioning of the company.*

To complete the research we conducted a study to illustrate the current situation for a sample of companies in Romania. For this we formulated and tested the following research hypotheses:

Q1: There is a relationship of dependency between the size of a firm and its degree of computerization

Q2: There is a relationship of dependency between the domain of activity of the firm and its degree of computerization

Q3: There is a relationship of dependency between the level of staff training and the use of IT within the company

Q4: There is a relationship of dependency between the decision to use IT within a firm and its impact on the organization and functioning of a company

Q5: There is a relationship between the existence of Internet within a company and its use for various purposes.

We tested these hypotheses through an empirical research based on a population survey of 82 companies in Romania. This part of positive research of the paper aims for the formulation of explanations about the concepts under investigation and their fundamentals in the practice of the firms. We wanted to hear the opinions of the most informed people in the field, which we believe are the managers.

To see if there is a correlation between independent and dependent variables in the analysis of responses to the questionnaire we chose Chi-square test ( $\chi^2$ ). This method tests the null hypothesis that two criteria of classification are independent. If two classification criteria are not independent, there is an association between them.

Chi-square is calculated finding the difference between each observed and theoretical frequency for each possible outcome, calculating their square, dividing them each on a theoretical frequency and adding the results:

$$\chi^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{E_i} \quad (1)$$

where:  $O_i$  = observed frequency;

$E_i$  = expected frequency (theoretical) involved by the null hypothesis.

In our research, we used chi-square test for independence and we calculated  $\chi^2$  using Statistica software. On the other hand, we determined the critical value of  $\chi^2$  in the statistics table, taking the value of the degree of freedom (df) and probability (p). Statistical significance (p level) of the result is an estimated size of the degree to which it is "true"

(within the meaning of “representative population”). Materiality level is  $p = 0.05$ <sup>1</sup>.  $P$  represents a decreasing index value level of security. When the  $p$  level is higher, the more unlikely that the observed relationship between variables in the sample to be a reliable it is. If  $\chi^2$  is equal to or greater than the critical  $\chi^2$  (0.05), the null hypothesis ( $H_0$ ) is rejected. Otherwise, the null hypothesis is accepted.

Also, where possible, we conducted the tests: Fisher exact, Phi, other correlations. Fisher exact test is interpreted similarly to  $\chi^2$  test, but it is exact for a smaller number of responses.

### **3. The results of the empirical research**

Through applied research based on a questionnaire<sup>2</sup> we studied how the practice of firms is reflected in respondent persons working in relation with IT. Respondents were employed in various companies in Romania. The firms were classified according to size, establishing criteria as the volume of turnover, the volume of assets, employment and industry (manufacturing, services etc.). The questions help us have a better understanding of the strategies of the firms to adopt the Internet combined with other types of computer networks: LAN, Intranet etc.

Other questions concerned the knowledge of how to use the Internet. Simple questions with binary response (yes or no) invited the respondent to rule on the main uses of the Internet: the transmission of service messages, adding and / or transmission of tax documents, consultation and deployment of banking accounts, search for information about business, looking for information about regulations, forming on-line, and information disclosure on the Internet. These questions focused on providing a role as mediator of these technologies within the firm and the relationship with external partners.

The next section was devoted to collecting data on business computerization. Within it, we addressed questions like: how to make the computerized activities, the types of systems used for specific activities, criteria for choosing software applications, the utilization of Excel tables, positive effects from the use of present and future computer applications, the degree to which user needs are satisfied by IT applications.

Some of the responses did not lead to rejection of the null hypothesis from the application of chi square and Fisher exact tests.

In order to interpret the results, we presented in a first phase the distribution of independent variables (number of employees, distribution of turnover, total asset distribution). The ranges considered the criteria set out in the classification of national firms. Distribution of responses according to the three criteria is as it follows:

- Distribution of employees (var. 1)

Analysing the responses to question 1 (var.1) we found that the distribution of responses is as it follows: 44% of respondents work in a number of firms with less than 50 employees and 56% of respondents work in firms with fewer than 50 employees.

- Distribution Turnover (var. 2)

<sup>1</sup> Sometimes a materiality level of 1.00 is accepted for two degrees of freedom

<sup>2</sup> For the questionnaire please send an e-mail to: [valentin.dumitru@soft-expert.info](mailto:valentin.dumitru@soft-expert.info)

Analysing the responses to question 2 (var.2) we found that the distribution of responses is as it follows: 53% of respondents work in firms with a turnover of less than EURO 1 million and 47% of respondents work in companies whose turnover is more than 1 million EURO.

- Distribution of total balance sheet assets (var. 3)

Analysing the responses to question 3 (var.3) we found that the distribution of responses is as follows: 59% of respondents work in firms with a lower balance sheet total of EURO 1 million and 41% of respondents work in companies whose total assets is more than one million EURO.

Approximately equidistant distribution of the number of responses in the two intervals for any of the three existing criteria ensures an optimal number of responses in the two categories for data analysis.

- Percentage distribution of the work done with Excel spreadsheet processor (var. 24)

Analysing the responses to the question IV.4. (var. 24) we noticed that most respondents use Excel spreadsheet processor for the achievement of more than 10% of the specific tasks.

- Distribution of works from the financial department (var. 25)

For the question IV.5 we received 64 responses. Our respondents use Excel spreadsheet processor for preparing financial statements, including annexes, budgets, other reports (sales journal, purchases journal, notes and depreciation) for management reporting, balance the composition of analytical accounts etc.

- Internet connection (var. 26)

After examining responses to the question IV.6. (var. 26), we noticed that all respondents said that the company's network is connected to the Internet. For this reason, we excluded the question from the statistics works.

- Information processing time (var. 27)

After examining responses to the question IV.6. (var. 27), we noticed that all the respondents said that the information was obtained in less time when using computer applications. For this reason, we excluded the question from the statistics works.

- Information processing speed (var. 28)

After examining responses to the question IV.6. (var. 28), we noticed that all the respondents stated that the use of computer applications increased the speed of processing. For this reason, we excluded the question from the statistics works.

- Distribution of other benefits arising from the use of computer applications (var. 30)

For the question IV.6 we received eight responses. They concern the deployment and benefits of IT: correlation to the market, ease of actual work, better access to information, reducing the budget by reducing the actual salaries, human error reduction, better control of staff activities since any mistake can be detected in real-time, and processing of information in less time.

- Distribution of the problems arising in implementing IT (var. 31)

For the question IV.7 we received 29 responses. Among the most important we think that are: delays in completing month-end reporting, the definition of integrity constraints, difficulties in working with IT professionals, have long lead times, getting data from the old system, lack of the domain's characteristics knowledge from the software company, overcrowding staff, the difficulty of the new system etc.

- Distribution of other effects that will have in the future the use of IT (var. 37)

For the question IV.8 we received four responses. Our respondents provided as future effects of the use of IT on business the use of a common method of reporting across the organization, market competitiveness and business efficiency, achieve electronic archiving, saving time and money, systematic work processes, establishing working procedures and the possibility of implementing a quality system.

We detail according to the research hypotheses and responses received the analysis of the study conducted:

*Q1: There is a relationship of dependency between the size of a firm and its degree of computerization*

To test this hypothesis, I launched the following null hypothesis:

Q<sub>10</sub>: The size of a firm and its degree of computerization are independent

To test the hypothesis we formulated the following questions: Question II.1. (Var. 1), the question II.2. (Var. 2), the question II.3. (Var. 3), the question II.5. (Var. 5), the question II.6. (Var. 6), the question II.7. (Var. 7), the question IV.1. (Var. 21), question IV.2. (Var. 22), question IV.4. (Var. 24), question IV.5. (Var. 25). Correlations tested that led to the rejection of the hypothesis are:

- The correlation between the turnover and the type of computer applications used in the company

The breakeven point obtained ( $p = 0.1688$ ) is less than 0.05, which means that a statistically significant correlation is obtained.

We see the preference for the use of ERPs and of independent applications for types of activities developed by different companies, in particular for the companies with a turnover of more than EUR 1 million. There is a preference for the use of independent applications by type of activities designed by the same firm, for the companies with a turnover of less than EUR 1 million. This polarization of preferences can be attributed to higher allocation of financial resources for the computerization of the companies with a greater turnover.

The frequency distribution shows that 33.33% of companies with a turnover of less than 1,000,000 use a ERP (integrated system), 55.55% use independent applications on the types of activities developed by the same company and 11.12% use independent applications on the types of activities developed by different companies. As regards the companies with turnover of less than EUR 1,000,000, 62.5% use an ERP (integrated system), 21.87% use independent applications by type of activities developed by the same company and 15.63% use independent applications for the types of activities developed by different companies.

- Correlation between the total balance sheet assets and the existence of a network of computers within the company

The breakeven point obtained ( $p = 0.08511$ ) is between 0.05 and 0.1 which means that a statistically significant correlation is obtained, but the link between the two variables is weak.

This correlation analysis revealed the existence of the same trend (the existence of a computer network) in companies with a balance sheet total exceeding EUR 1 million and the companies whose balance sheet asset is below this limit. However, in companies with a balance sheet asset value of more than EUR 1 million, the IT degree is greater, fact justified by the share of answers, reflecting the degree of inclination of the right.

The frequency distribution shows that 68.29% of the companies whose balance sheet total is less than EUR 1 million has a computer network and only 31.71% did not use such a network. As regards the companies with a total balance sheet assets of more than 1,000,000 in 86.21% of these there is a network of computers and in the rest not.

- Correlation between the number of employees and the existence of the company Intranet

Breakeven point obtained ( $p = 0.0780$ ) is between 0.05 and 0.1 which means that a statistically significant correlation is obtained, but the link between the two variables is weak.

It finds that in the firms with a number of employees over 50 Intranet is used in greater extent than in companies with less than 50 employees. This is justified by the need for a rapid mean of communicating information between departments.

The distribution of responses shows that 47.22% of firms with fewer than 50 employees have Intranet and the rest not. Also, 66.66% of companies with over 50 employees have Intranet.

- Correlation between turnover and the existence of the company Intranet

Materiality obtained ( $p = 0.0125$ ) is less than 0.05, which means that statistically significant correlation is obtained.

It appears that in the companies with a turnover of more than EUR 1 million an Intranet is used more than in firms with turnover below this limit. The result is justified by the need for a rapid mean of communicating information between departments within large companies. The conclusion is convergent with the correlation between the use of Intranet and number of employees.

From the distribution of responses we notice that in 48.57% of companies with a turnover under EUR 1 million is Intranet and in the rest not. In relation to companies with a turnover of over EUR 1 million, 78.13% have Intranet and only 21.87% do not have.

- Correlation between the total balance sheet assets and the existence of the company Intranet

Materiality obtained ( $p = 0.01788$ ) is less than 0.05, which means that statistically significant correlation is obtained.



It appears that companies with a balance sheet total of more than EUR 1 million use Intranet more than firms with a balance sheet total under this limit. The result is justified by the need for a rapid mean of communicating information between departments within large companies. The conclusion is convergent with correlation between the use of Intranet and number of employees, and the use of Intranet and the turnover of a company.

Distribution of responses reveals that 47.5% of firms with a lower balance sheet total of EUR 1,000,000 have Intranet and the rest do not. At the same time, 75.86% of companies with an active balance sheet exceeding EUR 1,000,000 have Intranet and only 24.14% do not.

After analyzing the results, we can say that the null hypothesis is rejected. Thus, we affirm that *there is a relationship of dependency between the size of a firm and its degree of computerization.*

*Q2: There is a relationship of dependency between the activities of the firm and its degree of computerization*

To test this hypothesis, we launched the following null hypothesis:

Q<sub>20</sub>: Areas of activity of firms and their degree of computerization are independent

To test the hypothesis we formulated the following questions: question II.4. (Var. 4), the question II.5. (Var. 5), the question II.6. (Var. 6), the question II.7. (Var. 7), the question IV.1. (Var. 21), question IV.2. (Var. 22), question IV.4. (Var. 24), question IV.5. (Var. 25).

Following statistical tests, we note that none of the correlations has been validated, and the null hypothesis cannot be rejected. Therefore, activities of the firms and their degree of computerization are independent. In other words, firms with different business areas may have the same degree of computerization.

*Q3: There is a relationship of dependency between the level of staff training and the use of IT within the company*

To test this hypothesis, we launched the following null hypothesis:

Q<sub>30</sub>: Staff training and the use of IT within the company are independent

To test the hypothesis we formulated the following questions: question II.4. (Var. 9), question II.5. (Var. 14), question II.6. (Var. 15), question II.7. (Var. 16), question IV.1. (Var. 17), question IV.2. (Var. 18), question IV.1. (Var. 19), question IV.1. (Var. 20), question IV.1. (Var. 22).

Following statistical tests performed, we notice that none of the correlations could be validated, and the null hypothesis cannot be rejected. Therefore, the level of staff training and the use of IT within the company are independent.

*Q4: There is a relationship of dependency between the decision to use IT within a firm and its impact on the organization and functioning of the company*

To test this hypothesis, we launched the following null hypothesis:

Q<sub>40</sub>: The decision to use IT within a firm and its impact on the organization and functioning of the company shall be independent

To test the hypothesis I formulated the following questions: question III.3. (Var. 14), question III.3. (Var. 15), question III.3. (Var. 16), question III.3. (Var. 17), question III.3. (Var. 18), question III.3. (Var. 19), question III.3. (Var. 20), question IV.3. (Var. 23), question IV.6. (Var. 29), question IV.8. (Var. 32), question IV.8. (Var. 33), question IV.8. (Var. 34), question IV.8. (Var. 35), question IV.8. (Var. 36), question IV.8. (Var. 38). The correlations tested that led to the rejection of the fourth null hypothesis are:

- Correlation between the use of the Internet messaging service for communication within the company department and computerization of inter-organizational relations

Materiality obtained ( $p = 0.03801$ ) is less than 0.05, which means that statistically significant correlation is obtained.

After analyzing the answers I found an obvious correlation between the use of Internet messaging service for communication and computerization of inter-organizational relations.

The distribution of responses shows that 87.5% of respondents from companies where the Internet is used to communicate work messages believe that in the future IT will have as an effect the computerized inter-organizational relations. In the case of companies where the Internet is not used for the communication of service messages, only 50% of respondents believe that the future effects of IT will be computerized inter-organizational relations.

- Correlation between Internet use for filing tax / social statements and reduced decision time

I note that the value obtained ( $p = 0.06331$ ) is between 0.05 and 1, which means that statistically the correlation exists but is weak.

The analysis of responses reveals a correlation between Internet use for filing tax / social statements and reduced decision time. This can be explained by reducing operating time and increased time devoted to reporting and analysis.

From the distribution of responses I observe that 96.97% of respondents from firms that use Internet for filing tax / social statements believe that the future effect of the use of IT on business will be to reduce decision time. 84.62% of respondents from firms that do not use Internet for filing tax / social statements believe that the future effect of the use of IT on business will be to reduce decision time.

- Correlation between the use of the Internet for consulting bank accounts and the transactions and the use of IT for the dematerialization of documents and procedures

Materiality obtained ( $p = 0.09201$ ) is between 0.05 and 1, which means that statistically there is a correlation, but this is pretty weak.

The correlation can be explained by the fact that Internet use for consulting bank accounts and the transactions is just a form of dematerialization of documents.

Analyzing the responses I see that 63.83% of respondents from companies where the Internet is used for consulting bank accounts and the transactions deemed dematerialization of documents and procedures will not be a result of the use of IT in the future. Only 17.86% of respondents from companies where the Internet is used for consulting bank accounts and the transactions deemed dematerialization of documents and procedures will not be a result of the use of IT in the future.

- Correlation between the use of the Internet for consulting bank accounts and the transactions and inter-organizational computerization

I note that the threshold of significance obtained ( $p = 0.05998$ ) is between 0.05 and 1, which means that statistically there is a correlation, but this is pretty weak.

The correlation can be explained by the fact that banking is a relationship with the units inter-organizational.

From the distribution of responses I observed that 91.49% of respondents from companies where the Internet is used for consulting bank accounts and the transactions considered that in the future the use of computerized IT will lead to inter-organizational relations. 75.86% of the respondents from companies where the Internet is not used for consulting bank accounts and the transactions considered that in the future the use of computerized IT will lead to inter-organizational relations.

- Correlation between the use of the Internet for seeking information from other businesses and inter-organizational computerization

Materiality obtained ( $p = 0.00276$ ) is less than 0.05, which means that a statistically significant correlation is obtained.

We see preference for the use of computerized inter-organizational relationships (with customers, suppliers, state representatives etc.) for the firms that use the Internet to search for business information. This polarization of preferences can be attributed to the fact that people who currently use the Internet realizes that it brings advantages (ie, reducing the time spent exchanging information with parties) in its relationship with partners.

Following analysis of responses we can say that 88.73% of respondents from companies where the Internet is used to search for information from other businesses believes that the future use of IT will result in the computerization of the inter-organizational relationships. Only 40% of respondents from companies where the Internet is used to search for information from other businesses and inter-organizational computerization consider the same thing.

- Correlation between the use of the Internet for seeking information from other businesses and the benefits achieved by implementing software application

Materiality obtained ( $p = 0.09222$ ) is between 0.05 and 0.1 which means that the statistically significant correlation is obtained, but the link between the two variables is weak.

It is noted that people using the Internet to search information about other businesses use applications that have responded better to their expectations. This can be explained by the fact that people who sought information on the Internet before the deployment of new applications were better informed and were able to purchase a suitable system.

From the distribution of responses we notice that 55.55% of respondents who come from companies where the Internet is used to search for information from other businesses believe that the software applications that were implemented respond to their expectations 100%; 31.94% considered they respond to their expectations 75-99% and 0-75% the difference in proportion. 28.57% of respondents who come from companies where the Internet is not used to search for information from other businesses believe that the

software applications that were implemented respond to their expectations 100%, 28.57% considered they respond to their expectations 75-99% and 0-75% the difference in proportion.

- Correlation between the use of the Internet for seeking information concerning regulations and the reduced time for decision

Materiality obtained ( $p = 0.06917$ ) is between 0.05 and 0.1 which means that the statistically significant correlation is obtained, but the link between the two variables is weak

It is noted that people who use the Internet to search information about regulations consumes less time for decision. This can be explained by the fact that people who use the Internet are informed faster than, for example, the ones that use books, textbooks, paper, legislation etc.

The distribution of responses showed that 96% of people who use the Internet for seeking information on regulations that affect the company believe that the use of IT in the future will reduce decision time. 75% of those not using the Internet for seeking information on regulations that affect the company believe the use of IT in the future will reduce decision time.

- Correlation between the use of the Internet for seeking information on regulations and redefining roles in organizations

Materiality obtained ( $p = 0.08561$ ) is between 0.05 and 0.1 which means that a statistically significant correlation is obtained, but the link between the two variables is weak.

The distribution of responses shows that 67.12% of respondents from companies where the Internet is used for searching for information on regulations consider one of the future benefits of the use of IT is redefining the roles in organizations. Meanwhile, only 25% of those not using the Internet to search information on regulations assume the same thing.

- Correlation between the use of the Internet for information disclosure and dematerialization of the documents and procedures

Materiality obtained ( $p = 0.09678$ ) is between 0.05 and 0.1 which means that a statistically significant correlation is obtained, but the link between the two variables is weak.

It follows from this analysis that people who use the Internet for information disclosure believe that one effect of the use of IT is the dematerialization of documents and procedures. This is logical from our point of view, as the Internet operates with intangible procedures and documents.

Analyzing the results of the empirical study, we notice that 80% of those who use the Internet for information disclosure believe that the use of IT in the future will lead to dematerialization of documents and procedures. 62.5% of the respondents from the companies that do not use the Internet for information disclosure believe the same thing.

- Correlation between the use of the Internet for information disclosure and the change in the information system, internal control and governance

Materiality obtained ( $p = 0.07789$ ) is between 0.05 and 0.1 which means that a statistically significant correlation is obtained, but the link between the two variables is weak.

Distribution of responses shows that 96.97% of those who use the Internet for information disclosure believe that the use of IT in the future will have no impact on the articulation of information systems, internal control and governance. Only 84.62% of respondents who do not use the Internet for information disclosure responded in the same way.

- Correlation between the decisive criterion in choosing computer applications purchased in the company and the computerization of the inter-organizational relations

Materiality obtained ( $p = 0.07376$ ) is between 0.05 and 0.1 which means that a statistically significant correlation is obtained, but the link between the two variables is weak.

We believe that the reason the decisive factor in choosing software applications purchased and inter-organizational computerization are related is that one of the criteria may be its use by the other companies in the group, the purchase of a site may be conditioned by the possibility that the stock of the main supplier can be seen etc.

On the basis of responses we notice that 90.24% of those who considered as the decisive criterion in choosing software the references received considered that in future the computerized inter-organizational relations will be used. Meanwhile, 88.89% of those who had the decisive criterion in choosing the quality-cost ratio gave the same answer.

- Correlation between the decisive factor in choosing software applications purchased in the company and the benefits achieved by implementing software applications

We note that the threshold of significance obtained ( $p = 0.00092$ ) is less than 0.05, which means that a statistically significant correlation is obtained.

We consider that this correlation was obtained because one of the decisive criteria in selecting software applications purchased is expected future benefits from their deployment.

Distribution of responses allows drawing the following conclusions: 66.67% of those who had the decisive criterion in choosing purchased computer applications the references received considered that the benefits achieved by implementing the applications meet their expectations 100%, 11.90% believe that they met expectations as a percentage of 75-99% and 0-75% the difference in proportion. Of those who had the decisive criterion in choosing applications the quality-cost ratio 33.33% believe that the benefits achieved by implementing the applications meet their expectations 100%, 61.11% consider that they met expectations as a percentage of 75-99% and 0-75% the difference in proportion.

After analyzing the results, we can say that the null hypothesis is rejected. Thus, we state that *there is a relationship of dependency between the decision to use IT within a firm and its impact on the organization and functioning of the company.*

*Q5: There is a relationship between the existence of Internet within a company and it's use for various purposes*

To test this hypothesis, I launched the following null hypothesis:

Q<sub>50</sub>: The existence of the Internet within a company and using it for various purposes are independent

To test the hypothesis I formulated the following questions: question III.2. (Var. 13), question III.3. (Var. 14), question III.3. (Var. 15), question III.3. (Var. 16), question III.3. (Var. 17), question III.3. (Var. 18), question III.3. (Var. 19), question III.3. (Var. 20).

- Correlation between the existence of the Internet within a company and using it for consulting bank accounts and the transactions on-line

We note that the threshold of significance obtained ( $p = 0.0046$ ) is less than 0.05, which means that a statistically significant correlation is obtained.

We believe that the existence of this correlation indicates that in many companies there are applications which help you view the transactions and bank accounts online. This can be explained by the time savings generated by using these services, charging lower fees to the bank, free provision of such services by the bank etc.

Distribution of responses shows that 69.23% of respondents in cases where there is Internet answered that it is used for consulting bank accounts and the transactions online. Only 28.57% of respondents in companies where there is no Internet gave the same response.

In conclusion, we can say that there is a relationship of dependency between *the existence of the Internet within a company and using it for various purposes*.

## Conclusions

The objective of this study was to prove the impact of IT on the company. In this sense, the hypotheses were launched:

Q1: There is a relationship of dependency between the size of a firm and its degree of computerization

Q2: There is a relationship of dependency between the activities of the firm and its degree of computerization

Q3: There is a relationship of dependency between the level of staff training and the use of IT within the company

Q4: There is a relationship of dependency between the decision to use IT within a firm and its impact on the organization and functioning of the company

Q5: There is a relationship between the existence of Internet within a company and its use for various purposes.

After empirical testing, hypotheses Q1, Q4 and Q5 were confirmed, while Q2 and Q3 were rejected. We believe that one reason for rejecting the hypothesis Q2 could be spread areas of activity of firms, but also that all firms, regardless of the field, are using IT. Regarding hypothesis Q3, a reason to reject it may be that staff was qualified for different types of IT skills (for example, we included in the questionnaire the Internet and Excel, which can be used almost by everyone).

It is not easy to determine the impact of IT on the economist's profession. One thing is certain: the traditional role of the economist is minimized because, with the ERPs, his tasks can be easily transferred to other persons such as computer operators or secretaries. We

believe that all employees are improving following the introduction of ERP or the impact of IT in this sector of business.

The idea of the empirical study can be repeated in future. A study could be done on the impact of IT to specific company divisions (eg, sales, production) or other types of entities (eg public-sector entities).

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